

**IN THE CLAIMS:**

Amend the claims as follows:

Claims 1-23 (Canceled).

24. (New) A substantially isolated polynucleotide comprising:
- (a) a polynucleotide sequence according to any one of SEQ ID NOS: 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25 and 27;
  - (b) a polynucleotide capable of selectively hybridising to a polynucleotide of (a);
  - (c) a polynucleotide having at least 80% sequence homology to a polynucleotide of (a) over 30 contiguous amino acids;
  - (d) a polynucleotide encoding a polypeptide of any one of SEQ ID NOS: 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 and 28; or
  - (e) a polynucleotide encoding a fragment of at least 10 amino acids of a polypeptide of any one of SEQ ID NOS: 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 and 28;
- wherein said polynucleotide encodes a polypeptide having the ability to stimulate an immune response against a mycobacterium.

25. (New) A substantially isolated polynucleotide according to claim 24 comprising:
- (a) a polynucleotide sequence according to SEQ ID NO: 23;
  - (b) a polynucleotide capable of selectively hybridising to a polynucleotide of SEQ ID NO: 23;
  - (c) a polynucleotide having at least 80% sequence homology to the polynucleotide of SEQ ID NO: 23 over 30 contiguous amino acids;
  - (d) a polynucleotide encoding the polypeptide of SEQ ID NO: 24; or
  - (e) a polynucleotide encoding a fragment of at least 10 amino acids of the polypeptide of SEQ ID NO: 24;

wherein said polynucleotide encodes a polypeptide having the ability to stimulate an immune response against a mycobacterium.

26. (New) A polynucleotide according to claim 24 which further comprises a label.
27. (New) A vector carrying a polynucleotide according to claim 24.
28. (New) A vector according to claim 27 which is an expression vector.
29. (New) A vector according to claim 28 wherein said polynucleotide is operably linked to a control sequence which is capable of providing for the expression of the coding sequence of the polynucleotide.
30. (New) A vector according to claim 27 which comprises one or more components selected from the group consisting of an origin of replication, a promoter for expression of the polypeptide encoded by said polynucleotide, a regulator of a promoter for expression of the polypeptide encoded by said polypeptide, an enhancer and a selectable marker gene.
31. (New) A vector according to claim 30 wherein said promoter is a mammalian, viral, yeast or bacterial promoter.
32. (New) A vector according to claim 31 wherein said promoter is selected from the group consisting of: a metallothionien promoter, an adenovirus promoter, the SV40 large T promoter, a retroviral LTR promoter, the polyhedrin promoter, an alcohol dehydrogenase promoter and a  $\beta$ -galactosidase promoter.
33. (New) A vector according to claim 27 which is adapted for use *in vivo*.

34. (New) A vector according to claim 27 which is a plasmid, virus or phage vector.

35. (New) A vector according to claim 34 wherein said viral vector is selected from the group consisting of retroviral vectors, adenoviral vectors, adeno-associated viral vectors, vaccinia virus vectors, herpes virus vector and alpha virus vectors.

36. (New) A host cell comprising, transformed with or transfected by a vector according to claim 27.

37. (New) A host cell according to claim 36 which is a bacterial, yeast, insect or mammalian cell.

38. (New) A host cell according to claim 37 which is selected from the group consisting of *M. bovis* BCG, *M. smegmatis*, a mycobacterium, *Corynebacteria* and *Salmonella*.

39. (New) A pharmaceutical composition comprising a polynucleotide according to claim 24 and a pharmaceutically acceptable carrier or diluent.

40. (New) A pharmaceutical composition comprising a vector according to claim 27 and a pharmaceutically acceptable carrier or diluent.

41. (New) A pharmaceutical composition comprising a host cell according to claim 36 and a pharmaceutically acceptable carrier or diluent.

42. (New) A method of raising an immune response in an animal or human against a mycobacterium, which method comprises administering an effective amount of a polynucleotide capable of expressing a polypeptide selected from:

- (i) a polypeptide according to any one of SEQ ID NOS: 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28 and 29;

- (ii) a polypeptide comprising a polypeptide according to (i);
  - (iii) a polypeptide having at least 70% amino acid identity to a polypeptide of (i) over 30 or more contiguous amino acids, which retains the ability to stimulate an immune response against said mycobacterium; or
  - (iv) a fragment of a polypeptide of (i) comprising at least 10 amino acids which retains the ability to stimulate an immune response against said mycobacterium
- to said human or animal and allowing said polypeptide to be expressed.

43. (New) A method according to claim 19 wherein said polynucleotide is selected from:

- (a) a polynucleotide sequence according to any one of SEQ ID NOS: 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25 and 27;
- (b) a polynucleotide capable of selectively hybridising to a polynucleotide of (a);
- (c) a polynucleotide having at least 80% sequence homology to a polynucleotide of (a) over 30 contiguous amino acids;
- (d) a polynucleotide encoding a polypeptide of any one of SEQ ID NOS: 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 and 28; or
- (e) a polynucleotide encoding a fragment of at least 10 amino acids of a polypeptide of any one of SEQ ID NOS: 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 and 28.

44. (New) A method of raising an immune response in an animal or human against a mycobacterium, which method comprises administering an effective amount of a polynucleotide capable of expressing a polypeptide selected from:

- (i) a polypeptide according to SEQ ID NO: 24;
  - (ii) a polypeptide comprising a polypeptide according to (i);
  - (iii) a polypeptide having at least 70% amino acid identity to a polypeptide of (i) over 30 or more contiguous amino acids, which retains the ability to stimulate an immune response against said mycobacterium; or
  - (iv) a fragment of a polypeptide of (i) comprising at least 10 amino acids which retains the ability to stimulate an immune response against said mycobacterium
- to said human or animal and allowing said polypeptide to be expressed.

45. (New) A method according to claim 19 wherein said polynucleotide is selected from:

- (a) a polynucleotide sequence according to SEQ ID NO: 23;
- (b) a polynucleotide capable of selectively hybridising to a polynucleotide of SEQ ID NO: 23;
- (c) a polynucleotide having at least 80% sequence homology to the polynucleotide of SEQ ID NO: 23 over 30 contiguous amino acids;
- (d) a polynucleotide encoding the polypeptide of SEQ ID NO: 24; or
- (e) a polynucleotide encoding a fragment of at least 10 amino acids of the polypeptide of SEQ ID NO: 24.

46. (New) A method according to claim 42 wherein said polynucleotide is provided in a vector, operably linked to a control sequence which is capable of providing for the expression of said polypeptide from said vector.

47. (New) A method according to claim 43 wherein said vector is a plasmid, virus or phage vector.

48. (New) A method of enhancing the response of an animal or human infected with a mycobacterium to treatment with an antimycobacterial drug, which comprises raising an immune response in said animal or human according to claim 42.